

# **Models of the Teaching Mathematics**

### 1. Classroom Interaction Analysis (Flanders Interaction Analysis Category System) And Its **Implications in Learning Mathematics**

Flander's Interaction Analysis Category System (FIACS) Flanders developed a system of interaction analysis to study what is happening in a classroom when a teacher teaches. It is known as Flanders Interaction Analysis Categories System (FIACS). Flanders and others developed this system at the University of Minnesota, U.S.A. between 1955 and 1960. Flanders classified total verbal behaviour into 10 categories. Verbal behaviour comprises teacher talk, student talk and silence or confusion. There are ten categories mentioned in this analysis. They are

### **Teacher's Talk - 7 Categories**

- (a) Indirect talk
- (b) Direct talk.

Category

- 1. Accepts Feelings
- 2. Praise or Encouragement
- 3. Accepts or Uses ideas of Pupils
- 4. Asking Questions
- 5. Lecture
- 6. Giving Directions
- 7. Criticizing or Justifying Authority

### **Pupil Talk -2 Categories**

- 8. Pupil Talk Response Category
- 9. Pupil Talk Initiation Neither Teacher Talk nor Pupil Talk 1 Category

Silence or Pause or Confusion -3 Category

## Meaning of various categories

### 1. Teacher Talk (7 Categories)

### (A) Indirect Talk

In this method of analysis, the first four categories represent the teacher's indirect Influence.





CTET | Super TET | KVS | Others

12 Months Validity

#### **Category 1: Accepts Feelings**

- In this category, teacher accepts the feelings of the pupils.
- He feels himself that the pupils should not be punished for exhibiting his feelings.
- Feelings may be positive or negative.

### **Category 2: Praise or Encouragement**

- Teacher praises or encourages student action or behaviour.
- When a student gives answer to the question asked by the teacher, the teacher gives positive reinforcement by saying words like good, very good, better, correct, excellent, carry on, etc.

### Category 3: Accepts or Uses ideas of Pupils

- It is just like 1st category. But in this category, the pupils' ideas are accepted only and not his feelings.
- If a pupil passes on some suggestions, then the teacher may repeat in nutshell in his own style or words.
- The teacher can say, I understand what you mean etc. Or the teacher clarifies, builds or develops ideas or suggestions given by a student

### **Category 4: Asking Questions**

- Asking question about content or procedures, based on the teacher ideas and expecting an answer from the pupil.
- Sometimes, teacher asks the question but he carries on his lecture without receiving any answer. Such questions are not included in this category.

### (B) Direct Talk

Next 5th to 7th categories represents the teacher's direct influence.

#### **Category 5: Lecturing /Lecture**

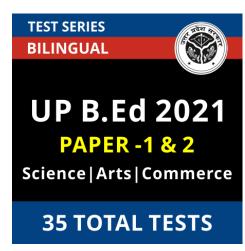
Giving facts or opinions about content or procedure expression of his own ideas, giving his own explanation or citing an authority other than a pupil.

### **Category 6: Giving Directions**

- The teacher gives directions, commands or orders or initiation with which a pupil/student is expected to comply with
  - Open your books. Stand up on the benches.

#### **Category 7: Criticizing or Justifying Authority**

When the teacher asks the pupils not to interrupt with foolish questions, then this behaviour is included in this category.



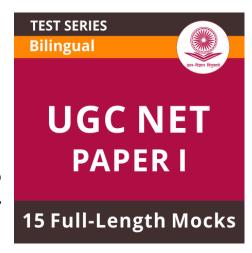
### 2. Pupil Talk (2 Categories)

### **Category 8: Pupil Talk Response**

- It includes the pupils talk in response to teacher's talk
- Teacher asks question, student gives answer to the question.

### **Category 9: Pupil Talk Initiation**

- Talk by pupils that they initiate.
- Expressing own ideas; initiating a new topic; freedom to develop opinions and a line of thought like asking thoughtful questions, going beyond the existing structure.



### 3. Silence or Pause or Confusion (1 category)

Category 10: Silence or Pause or Confusion

• Pauses, short periods of silence and period of confusion in which communication cannot be understood by the observer.

### **Advantages of FIACS**

- 1. It is an effective tool/instrument to measure the social-emotional climate in the classroom.
- 2. It is also used for in-service teachers.
- 3. It provides feedback to the pupil-teachers.
- 4. It is an objective and reliable method for observation of classroom teaching.
- 5. It is mostly teacher talk oriented.
- 6. It is used to compare the behaviour of teachers at different age levels, gender, subject etc. 7. It is much useful in team teaching and microteaching